



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,670	09/26/2005	Ryoji Funahashi	SAEG129.014APC	8345
20995	7590	08/13/2007		
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER VIJAYAKUMAR, KALLAMBELLA M	
			ART UNIT 1751	PAPER NUMBER
			NOTIFICATION DATE 08/13/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary

Application No.

10/550,670

Applicant(s)

FUNAHASHI, RYOJI

Examiner

Kallambella Vijayakumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 1751

DETAILED ACTION

This is a 371 of PCT/JP04/04034 filed 03/24/2004. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) over JP 2003-086006 filed 03/26/2003, which papers have been placed of record in the file. Claims 1-6 are currently pending with the application.

The information disclosure statement (IDS) submitted on 12/23/2005 has been considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamura et al (US 2001/0025494).

Okamura et teach a generator containing a perovskite composition with the formula $Gd_{1-x}R_xA_{1-y}B_yO_3$ wherein R-rare-earth; A-at least one element selected from Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ga, Ge, Al and Si; B-at least one element selected from Zr, Nb, Mo, Ag, In, Sn, Sb, Hf, Ta, W, Au and Bi; wherein $0 \leq x \leq 0.4$, $0 \leq y \leq 0.4$ (Title, Para 0036-0037, 0040-0042). The prior art composition, components and their ranges overlap over the instant claimed composition wherein it is either same or substantially same as that claimed by the applicants and will possess the instant claimed Seebeck coefficient, conductivity and thermoelectric properties in claims 1-2 and 5, because identical compositions have identical properties.

Art Unit: 1751

The structure meets the limitation of thermoelectric module in claim-6. All the limitations of the instant claims are met.

The reference is anticipatory.

2. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi (US 2001/0016554).

Takeuchi teaches a the composition of a complex oxide of the perovskite type in the catalyst comprising K and having the structural formula $\text{La}_{1-x}\text{K}_x\text{BO}_3$ (wherein B is at least one from among Mn, Co, Fe and Ni), wherein $0.2 < x < 0.4$. The prior art composition, components and their ranges overlap over the instant claimed composition wherein it is either same or substantially same as that claimed by the applicants and will possess the instant claimed Seebeck coefficient, conductivity and thermoelectric properties in claims 1-2 and 5, because identical compositions have identical properties. The catalyst manifold meets the limitation of thermoelectric module in claim-6. All the limitations of the instant claims are met.

The reference is anticipatory.

3. Claims 3-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimoto et al (US 5,352,299).

Yoshimoto et al teach a thermoelectric material with the composition $(\text{Ln}_{1-x}\text{Ax})\text{MO}_4$ wherein $0.01 \leq x \leq 0.05$, and Ln-Y, La, Dy, Yb and Sm; and A-Alkaline earth element, Ca, Sr, Ba; and M-Cu, Ti, Fe, Ni, Zn, Co and Mn (Cl-2, Ln 5-26). The prior art composition, components and their ranges overlap over the instant claimed composition wherein it is either same or substantially same as that claimed by the applicants and will possess the instant claimed Seebeck coefficient, conductivity and thermoelectric properties in claims 3-4, because identical compositions have identical properties. All the limitations of the instant claims are met.

The reference is anticipatory.

Art Unit: 1751

4. Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Funahashi et al (JP 2003-282964).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Funahashi et al teach a double oxide with the composition represented by the formula $\text{La}_{1-x}\text{M}_x\text{NiO}_{2.7-3.3}$ or $(\text{La}_{1-x}\text{M}_x)_2\text{NiO}_{3.6-4.4}$, where M is an element chosen from sodium, potassium, lithium, zinc, lead, barium, calcium, aluminum, neodymium, bismuth and yttrium and x is 0.01-0.8 that had good n-type thermoelectric characteristics, and negative seebeck coefficient at 100 deg. C or more and used as an n-type thermoelectric transducing material (Abstract of JP-964). All the limitations of the instant claims are met.

The reference is anticipatory.

5. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Funahashi et al (Thermoelectrics, 2003).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Funahashi et al teach a double oxide with the composition represented by the formula $(\text{La-M})\text{NiO}_3$ where M is an element chosen from K, Bi, Na that has good n-type thermoelectric characteristics, and negative seebeck coefficient at 100 deg. C or more and used as an n-type thermoelectric transducing material. The compositions of the specific formulations cited in the disclosure overlap over the instant claimed ranges (Abstract and whole article). All the limitations of the instant claims are met.

The reference is anticipatory.

Art Unit: 1751

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/507,868. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the claims of the instant application and the copending application are drawn to similar compositions having similar components in similar ranges and having same utility, wherein the compositions of the copending application overlap over the instant claimed compositions and they are not patentably distinct from each other. The sintered oxides in copending application in claims 7-10 would be obvious over the making of these compositions by sintering the oxide precursors.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. The examiner notes that the copending application has been allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8.30-6.00 Mon-Thu, 8.30-5.00 Alt Fri.

Art Unit: 1751

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/
7/31/07


DOUGLAS MCGINTY
SUPERVISORY PATENT EXAMINER

1751